AMENDMENTS TO THE CLAIMS

1.-27. **Canceled**

28. **(New)** A method for reducing unspecific binding and/or cross-reactivity and/or disturbing effects of matrices during a specific binding reaction of a binding pair, the method comprising conducting said binding reaction in an aqueous solution for the specific binding reaction, wherein a first binding member of said binding pair recognises its complementary second binding member, said solution comprising

a) a buffer to control pH;

b) a compound A selected from the group consisting of: a compound defined by the general formula I R^1-[[CR^2R^3]$_p$-O]$_q$-R^4, wherein R^1 is hydrogen or hydroxy group, R^2 for each unit independently is hydrogen or hydroxy group, R^3 is hydrogen, methyl group, ethyl group, R^4 is hydrogen or alkyl group, p is an integer of from 2 to 10 and q is an integer of from 1 to 100, with the proviso that the compound at least carries two hydroxy groups; a polyol; or a saccharide; and

c) a non-ionic detergent,

thereby reducing unspecific binding and/or cross-reactivity and/or disturbing effects of matrices.

29. **(New)** The method of Claim 28, wherein said aqueous solution further comprises a protein in an amount effective to immunologically block non-specific antibody binding.

30. **(New)** The method of Claim 29, wherein the protein is selected from the group consisting of bovine serum albumin, ovalbumin, casein, and fetal bovine serum.

31. **(New)** The method of Claim 29, wherein the concentration of the protein is in the range of 0.1 to 2 % w/v.

32. **(New)** The method of Claim 28, wherein the solution comprises a salt selected from the group consisting of NaCl, KCl, and NH_4Cl.

33. **(New)** The method of Claim 28, wherein the solution has an ionic strength of 100 mM to 1.5 M.

34. **(New)** The method of Claim 28, wherein the buffer is selected from the group consisting of Tris (Tris(hydroxymethyl)-aminomethane, Pipes (Piperazine-1,4-bis-2-ethane

sulfonic acid), Mes (4- Morpholino ethane sulfonic acid), Hepes (4-(2-hydroxyethyl)-1-piperazine- ethane sulfonic acid), and phosphate buffer.

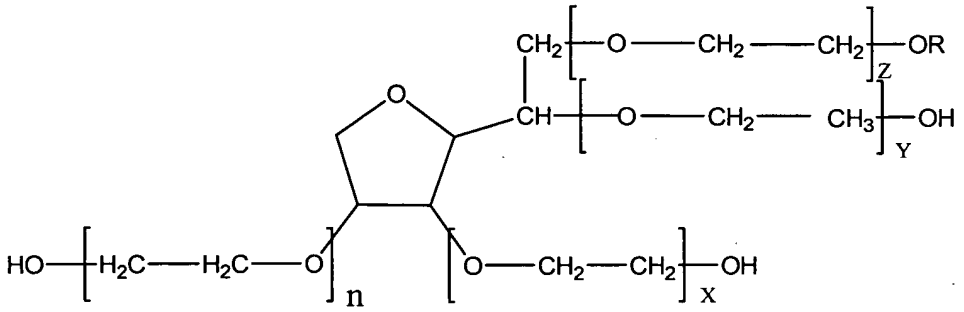
35. **(New)** The method of Claim 28, wherein the compound A is selected from the group consisting of polyalkylene glycol, polypropylene glycol, propylene glycol, polyethylene glycol, ethylene glycol, monosaccharides, disaccharides, trisaccharides, saccharose, mannose, trehalose, polyol, glycerol and mixtures thereof.

36. **(New)** The method of Claim 28, wherein the concentration of the compound A is in the range of 0.5 to 25 % v/v.

37. **(New)** The method of Claim 28, wherein the non- ionic detergent is a compound of the general formula selected from the group consisting of:

a) a substituted phenyl residue having substituents R^1 and R^2 (R^1-Ph-R^2), wherein R^1 is C_1-C_9 a alkyl group, and R^2 is a $-O-[CH_2-CH_2-O]_a-H$ group, wherein "a" is an integer of 5 to 40, wherein R^2 in respect to R^1 is in para, meta or ortho position, and

b)



wherein n, x, y and z together is an integer of 5 to 40, R is a fatty acid residue.

38. **(New)** The method of Claim 28, wherein the non-ionic detergent is selected from the group consisting of Dodecylpoly(ethyleneglycolether)$_m$, wherein m is an integer of 5 to 40; 1-O-n-Octyl-β-D-glucopyranoside (n-Octylglucoside); Alkylphenolpoly(ethylene-glycolether)$_m$, wherein m is an integer of 5 to 40; Alkylphenolpoly(ethylene-glycolether)$_m$, wherein m=11 (Nonidet Page); 1-O-n-Dodecyl-β-D-glucopyranosyl (1-4)alpha-D-glucopyranoside; Dodecylpoly-(ethyleneglycolether)$_m$, wherein m is an integer of 5 to 40; Dodecylpoly-(ethyleneglycolether)$_m$, wherein m = 23 (Brij35®); Poly(oxyethylene)(20)-sorbitane mono fatty acid ester; Poly(oxyethylene)(20)-sorbitane monooleate (Tween®80); Poly(oxyethylene) (20)-sorbitane monolaurate (Tween®20); Poly(oxyethylene)(20)-sorbitane monopalmitate

(Tween®40); Poly(oxyethylene)(20)-sorbitane monostearate); Octylphenolpoly(ethylene-glycolether)$_m$, wherein m is an integer of 5 to 40; and Octylphenolpoly(ethylene-glycolether)$_m$, wherein m=10 (Triton®X 100).

39. **(New)** The method of Claim 28, wherein the concentration of the non-ionic detergent is in the range of 0.1 to 1.0 % v/v.

40. **(New)** The method of Claim 28, wherein the ratio of the non-ionic detergent to the compound A is from 1:15 to 1:25.

41. **(New)** The method of Claim 28, wherein the aqueous solution does not contain dithiothreitol.

42. **(New)** The method of Claim 28, wherein the pH is adjusted in the range of 5.6 to 9.6.

43. **(New)** The method of Claim 28, wherein the aqueous solution has the capability of reducing unspecific binding, cross-reactivity, and disturbing effects of the matrices.

44. **(New)** The method of Claim 28, wherein the aqueous solution has the capability of preventing the low-affinity binding with K_D values of up to 10^{-7} M.

45. **(New)** The method of Claim 28, wherein the aqueous solution has the capability of preventing the low-affinity binding with K_D values of up to 10^{-7} M and reducing the mid-range affinity binding with K_D values in the range of between 10^{-7} M and 10^{-8} M by at least 90 %.

46. **(New)** The method of Claim 28, wherein the aqueous solution has the capability of preventing the low-affinity binding with K_D values of up to 10^{-7} M and reducing the mid-range affinity binding with K_D values in the range of between 10^{-7} and 10^{-9} by at least 90 %.

47. **(New)** The method of Claim 28, wherein the aqueous solution has the capability to increase the binding activity or affinity of antibodies.

48. **(New)** The method of Claim 28, wherein said binding pair is antibody-antigen binding pair.

49. **(New)** The method of Claim 28, wherein said binding pair is receptor-ligand binding pair.